



## Upgrades to the Daresbury Laboratory Vertical Facility and testing of PIP-II HB650 cavities

*Thursday 25 September 2025 14:30 (3 hours)*

A novel vertical test facility (VTF) has been in operation at the UKRI-STFC Daresbury Laboratory since 2019. This VTF tests jacketed SRF cavities in a horizontal configuration at 2 K. Originally designed and operated for 704 MHz high-beta cavities for ESS, the facility has now been upgraded and expanded to test 650 MHz high-beta cavities for PIP-II, including fast cooldown capability ( $>20$  K/min) for magnetic flux expulsion. This paper reports on the new design, commissioning, and operation of the facility.

### I have read and accept the Privacy Policy Statement

Yes

### Footnotes

### Funding Agency

UKRI-STFC

**Author:** BLACKETT-MAY, Andrew (ASTeC, STFC Daresbury Laboratory)

**Co-authors:** WHEELHOUSE, Alan (ASTeC, STFC Daresbury Laboratory); SHABALINA, Anna (Science and Technology Facilities Council); AKINTOLA, Ayo (ASTeC, STFC Daresbury Laboratory); JENKINS, Conor (Science and Technology Facilities Council); MASON, David (Science and Technology Facilities Council); Mr CAVANAGH, Edward (ASTeC, STFC Daresbury Laboratory); Dr WU, Genfa (Fermi National Accelerator Laboratory); MILLER, George (Science and Technology Facilities Council); Mr JONES, Geraint (Science and Technology Facilities Council); PARK, HyeKyoung (Fermi National Accelerator Laboratory); SKACHKO, Ivan (ASTeC, STFC Daresbury Laboratory); MUTCH, Jennifer (Science and Technology Facilities Council); Mr HASSALL, John (Science and Technology Facilities Council); OZELIS, Joseph (Fermi National Accelerator Laboratory); GRASSELLINO, Laura (Fermi National Accelerator Laboratory); PENDLETON, Mark (Science and Technology Facilities Council); Mr JONES, Matthew (ASTeC, STFC Daresbury Laboratory); POYNTON, Oliver (Science and Technology Facilities Council); SMITH, Paul (ASTeC, STFC Daresbury Laboratory); MCINTOSH, Peter (Science and Technology Facilities Council); HORNICKEL, Philip (Science and Technology Facilities Council); PATTALWAR, Shrikant (ASTeC, STFC Daresbury Laboratory); WILDE, Stuart (Daresbury Laboratory); CHOUHAN, Vijay (Fermi National Accelerator Laboratory); Ms BILQUES, Zakia (Science and Technology Facilities Council)

**Presenter:** BLACKETT-MAY, Andrew (ASTeC, STFC Daresbury Laboratory)

**Session Classification:** Thursday Poster Session

**Track Classification:** MC1: SRF Facilities